## **EAST Search History**

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	25	catsper\$	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT	ADJ	ON	2007/03/07 15:09
L2	38997	sperm or spermatozoa or spermatozoan or spermatogenesis or gamete	US-PGPUB; USPAT; EPO; JPO; DERWENT	ADJ	ON	2007/03/07 15:09
L3	1785536	chaṇnel	US-PGPUB; USPAT; EPO; JPO; DERWENT	ADJ	ON	2007/03/07 15:09
L4	996414	ion	US-PGPUB; USPAT; EPO; JPO; DERWENT	ADJ	ON	2007/03/07 15:09
L5	269949	cation or (positive adj ion)	US-PGPUB; USPAT; EPO; JPO; DERWENT	ADJ	ON	2007/03/07 15:09
L6	119	L2 same L3 same (L4 or L5)	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT	ADJ	ON	2007/03/07 15:09
L7	1	wo-200061624-\$.did.	US-PGPUB; USPAT; EPO; JPO; DERWENT	ADJ	ON	2007/03/07 15:10
L8	1	wo-200190304-\$.did.	US-PGPUB; USPAT; EPO; JPO; DERWENT	ADJ	ON	2007/03/07 15:10
L9	8867	ren.in. or clapham.in. or garbers.in. or quill.in.	US-PGPUB; USPAT; EPO; JPO; DERWENT	ADJ	ON	2007/03/07 15:11
L10	88	19 and 12	US-PGPUB; USPAT; EPO; JPO; DERWENT	ADJ	ON	2007/03/07 15:12

L22

=>

## (FILE 'HOME' ENTERED AT 15:13:17 ON 07 MAR 2007)

13 L21 AND TRANSMEMBRANE

FILE 'MEDLINE, AGRICOLA, BIOSIS, CAPLUS, EMBASE, SCISEARCH' ENTERED AT 15:13:30 ON 07 MAR 2007 E REN D/AU L1811 E3 E REN DEJIAN/AU L2 38 E3 E CLAPHAM D E/AU 959 E3 OR E5 OR E6 OR E7 L3 E GARBERS D L/AU L41208 E3 OR E5 OR E6 OR E7 E QUILL T A/AU  $L_5$ 63 E3 OR E11 OR E12 L6 3000 L1 OR L2 OR L3 OR L4 OR L5 L7 129 CATSPER? L8 46 DUP REM L7 (83 DUPLICATES REMOVED) L9 379653 SPERM OR SPERMATOZOA OR SPERMATOZOAN OR SPERMATOGENESIS OR GAME L10 576 L6 AND L9 3656172 (ION OR CATION OR (POSITIVE(W)ION)) L111605315 CHANNEL OR PORE L12 L13 243826 L11 (S)L12 L1450 L10 AND L13 L15 17 DUP REM L14 (33 DUPLICATES REMOVED) L16 1308 L13 AND L9 L17 1014 L13 (P) L9 L18 1837010 MOTIL? OR FUSION OR FERTIL? L19 799 L16 AND L18 563 L13 (P) L9 (P) L18 L20 185 DUP REM L20 (378 DUPLICATES REMOVED) L21

```
* <!--StartFragment-->RESULT 3
 US-10-828-975-2
 ; Sequence 2, Application US/10828975
 ; Publication No. US20050142566A1
 ; GENERAL INFORMATION:
 ; APPLICANT: REN, DEJIAN
  APPLICANT: CLAPHAM, DAVID E.
  APPLICANT: GARBERS, DAVID L.
  APPLICANT: QUILL, TIMOTHY A.
  TITLE OF INVENTION: SPERM-SPECIFIC CATION CHANNEL, CATSPER2, AND USES
  TITLE OF INVENTION: THEREFOR
  FILE REFERENCE: 110313.136US2
  CURRENT APPLICATION NUMBER: US/10/828,975
   CURRENT FILING DATE: 2004-04-21
   PRIOR APPLICATION NUMBER: PCT/US02/33676
   PRIOR FILING DATE: 2002-10-22
   PRIOR APPLICATION NUMBER: 60/345,324
   PRIOR FILING DATE: 2001-10-22
  NUMBER OF SEQ ID NOS: 7
  SOFTWARE: PatentIn Ver. 3.3
  SEQ ID NO 2
   LENGTH: 528
    TYPE: PRT
    ORGANISM: Homo sapiens
 US-10-828-975-2
  Query Match
                      94.8%; Score 1984; DB 5; Length 528;
  Best Local Similarity 98.0%; Pred. No. 1.7e-171;
  Matches 397; Conservative 1; Mismatches
                                         3; Indels
                                                                1;
 QV SEQID#4 1 MAAYQQEEQMQLPRADAIRSRLIDTFSLIEHLQGLSQAVPRHTIRELLDPSRQKKLVLGD 60
            #2 1 MAAYQQEEQMQLPRADAIRSRLIDTFSLIEHLQGLSQAVPRHTIRELLDPSRQKKLVLGD 60
          61 QHQLVRFSIKPQRIEQISHAQRLLSRLHVRCSQRPPLSLWAGWVLECPLFKNFIIFLVFL 120
 Qу
            Db
          61 QHQLVRFSIKPQRIEQISHAQRLLSRLHVRCSQRPPLSLWAGWVLECPLFKNFIIFLVFL 120
         121 NTIILMVEIELLESTNTKLWPLKLTLEVAAWFILLIFILEILLKWLSNFSVFWKSAWNVF 180
 Qу
            Db
         121 NTIILMVEIELLESTNTKLWPLKLTLEVAAWFILLIFILEILLKWLSNFSVFWKSAWNVF 180
 Qу
         181 DFVVTMLSLLPEVVVLVGVTGQSVWLQLLRICRVLRSLKLLAQFRQIQIIILVLVRALKS 240
            Db
         181 DFVVTMLSLLPEVVVLVGVTGQSVWLQLLRICRVLRSLKLLAQFRQIQIIILVLVRALKS 240
         241 MTFLLMLLLIFFYIFAVTGVYVFSEYTRSPRQDLEYHVFFSDLPNSLVTVFILFTLDHWY 300
 Qу
            241 MTFLLMLLLIFFYIFAVTGVYVFSEYTRSPRQDLEYHVFFSDLPNSLVTVFILFTLDHWY 300
 Db
         301 ALLQDVWKVPEVSRIFSSIYFILWLLLGSIIFRSIIVAMMVTNFQNIRKELNEEMARREV 360
 Qу
            Db
         301 ALLQDVWKVPEVSRIFSSIYFILWLLLGSIIFRSIIVAMMVTNFQNIRKELNEEMARREV 360
 Qу
         361 QLKADMFKRQIIQRRKNMSHEALTSSHSKIEDRSFGLGDSCARKS 405
            Db
         361 QLKADMFKRQIIQRRKNMSHEALTSSHSKIEDR----GASQQRES 401
 <!--EndFragment-->
```

```
<!--StartFragment-->RESULT 12
AAB52176
ΙD
     AAB52176 standard; protein; 243 AA.
XX
AC
    AAB52176;
XX
DT
     22-FEB-2001 (first entry)
XX
DE
     Human secreted protein BLAST search protein SEQ ID NO: 132.
XX
KW
    Cytostatic; immunosuppressive; nootropic; neuroprotective; antiviral;
KW
     antiallergic; hepatotropic; antidiabetic; antiinflammatory; antiulcer;
     vulnerary; anticonvulsant; antibacterial; antifungal; antiparasitic;
ΚW
     cardiant; gene therapy; cancer; immune disorder; cardiovascular disorder;
ΚW
    neurological disease; infection; human; secreted protein.
ΚW
XX
OS
    Homo sapiens.
XX
PΝ
    WO200061624-A1.
XX
    19-OCT-2000.
PD
XX
     06-APR-2000; 2000WO-US008980.
PF
XX
PR
     09-APR-1999; 99US-0128700P.
    20-JAN-2000; 2000US-0176930P.
PR
XX
PΑ
     (HUMA-) HUMAN GENOME SCI INC.
XX
PΙ
    Rosen CA, Ruben SM, Komatsoulis G;
XX
    WPI; 2000-656324/63.
DR
XX
PT
    New nucleic acid molecules encoding human secreted proteins, used in
PT
    preventing, treating or ameliorating a disorder, e.g. Alzheimer's and
PT
     Parkinson's diseases and cancers.
XX
PS
     Disclosure; Page 469-470; 478pp; English.
XX
CC
    The invention relates to the isolation of genes AAC96900-C96947 encoding
CC
    the human secreted proteins AAB52104-B52150. This sequence was used as a
CC
    query sequence for BLASTX searches. The genes and proteins are useful for
CC
    preventing, ameliorating or treating medical conditions, e.g. by protein
CC
    or gene therapy. The genes are isolated from a range of human tissues
CC
    disclosed in the specification. The nucleic acids, proteins, antibodies
CC
     and (ant)agonists are useful in the diagnosis, treatment and prevention
CC
    of: (a) cancer, e.g. breast and ovarian cancer, and other cancers of the
CC
    adrenal gland, bone, bone marrow, breast, gastrointestinal tract, liver,
CC
    lung, or urogenital; (b) immune disorders e.g. Addison's disease,
CC
    allergies, autoimmune haemolytic anaemia, autoimmune thyroiditis,
CC
    diabetes mellitus, Crohn's disease, multiple sclerosis, rheumatoid
CC
    arthritis and ulcerative colitis; (c) cardiovascular disorders such as
CC
    myocardial ischaemias; (d) wound healing; (e) neurological diseases e.g.
CC
    cerebral anoxia and epilepsy; and (f) infectious diseases such as viral,
CC
    bacterial, fungal and parasitic infections
XX
SO
    Sequence 243 AA;
  Query Match
                          46.0%; Score 1221; DB 3; Length 243;
  Best Local Similarity 100.0%; Pred. No. 7.7e-104;
                              0; Mismatches
                                                               0; Gaps
 Matches 243; Conservative
                                                   0; Indels
                                                                             0;
```

•			
Qy5EQ10#2	108	PLFKNFIIFLVFLNTIILMVEIELLESTNTKLWPLKLTLEVAAWFILLIFILEILLKWLS	167
Db	1		60
Qу	168	NFSVFWKSAWNVFDFVVTMLSLLPEVVVLVGVTGQSVWLQLLRICRVLRSLKLLAQFRQI	227
Db	61	NFSVFWKSAWNVFDFVVTMLSLLPEVVVLVGVTGQSVWLQLLRICRVLRSLKLLAQFRQI	120
Qу	228	QIIILVLVRALKSMTFLLMLLLIFFYIFAVTGVYVFSEYTRSPRQDLEYHVFFSDLPNSL	287
Db	121	QIIILVLVRALKSMTFLLMLLLIFFYIFAVTGVYVFSEYTRSPRQDLEYHVFFSDLPNSL	180
Qу	288	VTVFILFTLDHWYALLQDVWKVPEVSRIFSSIYFILWLLLGSIIFRSIIVAMMVTNFQNI	347
Db	181	VTVFILFTLDHWYALLQDVWKVPEVSRIFSSIYFILWLLLGSIIFRSIIVAMMVTNFQNI	240
Qу	348	RKE 350	
Db	241	RKE 243	
		·	

```
<!--StartFragment-->RESULT 3
ID
     ABB89967 standard; protein; 414 AA.
XX
     ABB89967;
AC
XX
DT
     24-MAY-2002 (first entry)
XX
DE
     Human polypeptide SEQ ID NO 2343.
XX
KW
     Cytostatic; immunosuppressive; nootropic; neuroprotective; antiviral;
KW
     antiallergic; hepatotropic; antidiabetic; antiinflammatory; antiulcer;
ΚW
     vulnerary; anticonvulsant; antibacterial; antifungal; antiparasitic;
KW
     cardiant; gene therapy; cancer; immune disorder; cardiovascular disorder;
ΚW
     neurological disease; infection; human; secreted protein.
XX
OS
     Homo sapiens.
XX
PN
     WO200190304-A2.
XX
PD
     29-NOV-2001.
XX
PF
     18-MAY-2001; 2001WO-US016450.
XX
PR
     19-MAY-2000; 2000US-0205515P.
XX
PA
     (HUMA-) HUMAN GENOME SCI INC.
XX
PΙ
     Birse CE,
               Rosen CA;
XX
DR
     WPI; 2002-122018/16.
DR
     N-PSDB; ABL90376.
XX
PT
     Novel 1405 isolated polypeptides, useful for diagnosis, treatment and
PT
     prevention of neural, immune system, muscular, reproductive,
PT
     gastrointestinal, pulmonary, cardiovascular, renal and proliferative
PT
     disorders.
XX
PS
     Claim 11; SEQ ID NO 2343; 2081pp + Sequence Listing; English.
XX
CC
     The invention relates to novel genes (ABL89449-ABL90853) and proteins
CC
     (ABB89040-ABB90444) useful for preventing, treating or ameliorating
CC
     medical conditions e.g. by protein or gene therapy. The genes are
CC
     isolated from a range of human tissues disclosed in the specification.
CC
     The nucleic acids, proteins, antibodies and (ant)agonists are useful in
CC
     the diagnosis, treatment and prevention of: (a) cancer, e.g. breast and
CC
     ovarian cancer and other cancers of the adrenal gland, bone, bone marrow,
CC
     breast, gastrointestinal tract, liver, lung, or urogenital; (b) immune
CC
     disorders e.g. Addison's disease, allergies, autoimmune haemolytic
CC
     anaemia, autoimmune thyroiditis, diabetes mellitus, Crohn's disease,
CC
     multiple sclerosis, rheumatoid arthritis and ulcerative colitis; (c)
CC
     cardiovascular disorders such as myocardial ischaemias; (d) wound healing
CC
     ; (e) neurological diseases e.g. cerebral anoxia and epilepsy; and (f)
CC
     infectious diseases such as viral, bacterial, fungal and parasitic
CC
     infections. Note: The sequence data for this patent did not form part of
CC
     the printed specification, but was obtained in electronic format directly
CC
     from WIPO at ftp.wipo.int/pub/published_pct sequences
XX
SO
     Sequence 414 AA;
                          99.8%; Score 2087; DB 5; Length 414;
 Query Match
```

Best Match		Similarity 99.8%; Pred. No. 1.4e-205; 3; Conservative 0; Mismatches 1; Indels 0; Gaps 0	;
Qу	1	MAAYQQEEQMQLPRADAIRSRLIDTFSLIEHLQGLSQAVPRHTIRELLDPSRQKKLVLGD 60	
Db <sub>.</sub>	1	MAAYQQEEQMQLPRADAIRSRLIDTFSLIEHLQGLSQAVPRHTIRELLDPSRQKKLVLGD 60	
Qу	61	QHQLVRFSIKPQRIEQISHAQRLLSRLHVRCSQRPPLSLWAGWVLECPLFKNFIIFLVFL 120	
Db	61	QHQXVRFSIKPQRIEQISHAQRLLSRLHVRCSQRPPLSLWAGWVLECPLFKNFIIFLVFL 120	
Qу	121	NTIILMVEIELLESTNTKLWPLKLTLEVAAWFILLIFILEILLKWLSNFSVFWKSAWNVF 180	
Db	121		
Qу	181	DFVVTMLSLLPEVVVLVGVTGQSVWLQLLRICRVLRSLKLLAQFRQIQIIILVLVRALKS 240	
Db	181		
QУ	241	MTFLLMLLLIFFYIFAVTGVYVFSEYTRSPRQDLEYHVFFSDLPNSLVTVFILFTLDHWY 300	
Db	241		
Qу	301	ALLQDVWKVPEVSRIFSSIYFILWLLLGSIIFRSIIVAMMVTNFQNIRKELNEEMARREV 360	
Db	301		
Qу	361	QLKADMFKRQIIQRRKNMSHEALTSSHSKIEDRSFGLGDSCARKSARANGNGSG 414	
Db	361		

<!--EndFragment-->